



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

An Analysis of the South Carolina Peanut Industry

Yuliya V. Bolotova

Assistant Professor

Department of Agricultural Sciences

College of Agriculture, Forestry and Life Sciences

Clemson University

Clemson, SC 29634

yuliyab@clemson.edu

Nathan B. Smith

Extension Professor

Department of Agricultural Sciences

College of Agriculture, Forestry and Life Sciences

Clemson University

Columbia, SC 29224

nathan5@clemson.edu

*Selected Poster prepared for presentation
at the Southern Agricultural Economics Association's 2017 Annual Meeting,
Mobile, Alabama, February 4 - 7, 2017*

Copyright 2017 by Yuliya V. Bolotova and Nathan B. Smith. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

An Analysis of the South Carolina Peanut Industry

Yuliya V. Bolotova¹ and Nathan B. Smith²

Assistant Professor¹ and Extension Professor², Department of Agricultural Sciences, Clemson University

Introduction

2002: A significant change in Federal programs affecting U.S. peanut industry

Prior to 2002: Federal programs directly affected peanut supply and price

- Peanut production quotas and price supports

2002: Industry deregulation

- Peanut quota buyout program

Peanut growers became eligible for a number of farm support programs

Crop years 2014-2018 programs include

- Marketing Assistance Loan
- Price Loss Coverage
- Agriculture Risk Coverage

Objectives

- To evaluate the performance of peanut industry in South Carolina in the period following the industry deregulation
- To focus on changes in the level and volatility of key economic variables
- To provide preliminary estimates of peanut price flexibility

Data

USDA National Agricultural Statistics Service

- Area planted, production, yield, production value, price received by growers

USDA Economic Research Service

- Peanut production costs

All variables used in the analysis are on a yearly basis

Methodology

- Averages and coefficients of variation (CV) are calculated for key economic variables

Two periods are used in the analysis

- 1995-2001: a period prior to the industry deregulation

- 2002-2015: a period following the industry deregulation

Table 1. South Carolina Peanut Industry: Peanut Production and Price (1995-2002).

		1995-2001		2002-2015	
		Average	CV	Average	CV
Area planted	acres	11,214	0.04	66,071	0.48
Production	pounds	29,625,000	0.08	210,052,857	0.55
Yield	pounds/acre	2,786	0.11	3,293	0.14
Production value	\$	7,977,286	0.10	52,166,071	0.68
Price received	\$/pound	0.27	0.07	0.23	0.20

Changes in the Industry Performance Following the Deregulation (2002-2015)

- The average *area planted* increased almost 6 times
 - The area volatility increased 12 times
- The average *production* measured in pounds increased 7 times
 - The production volatility increased almost 7 times
- The average *yield* measured in pounds per acre increased by 18%
- The average *production value* measured in \$ increased 6.5 times
 - The production value volatility increased almost 7 times
- The average *price* received by growers decreased by 14%
 - The price volatility increased almost 3 times

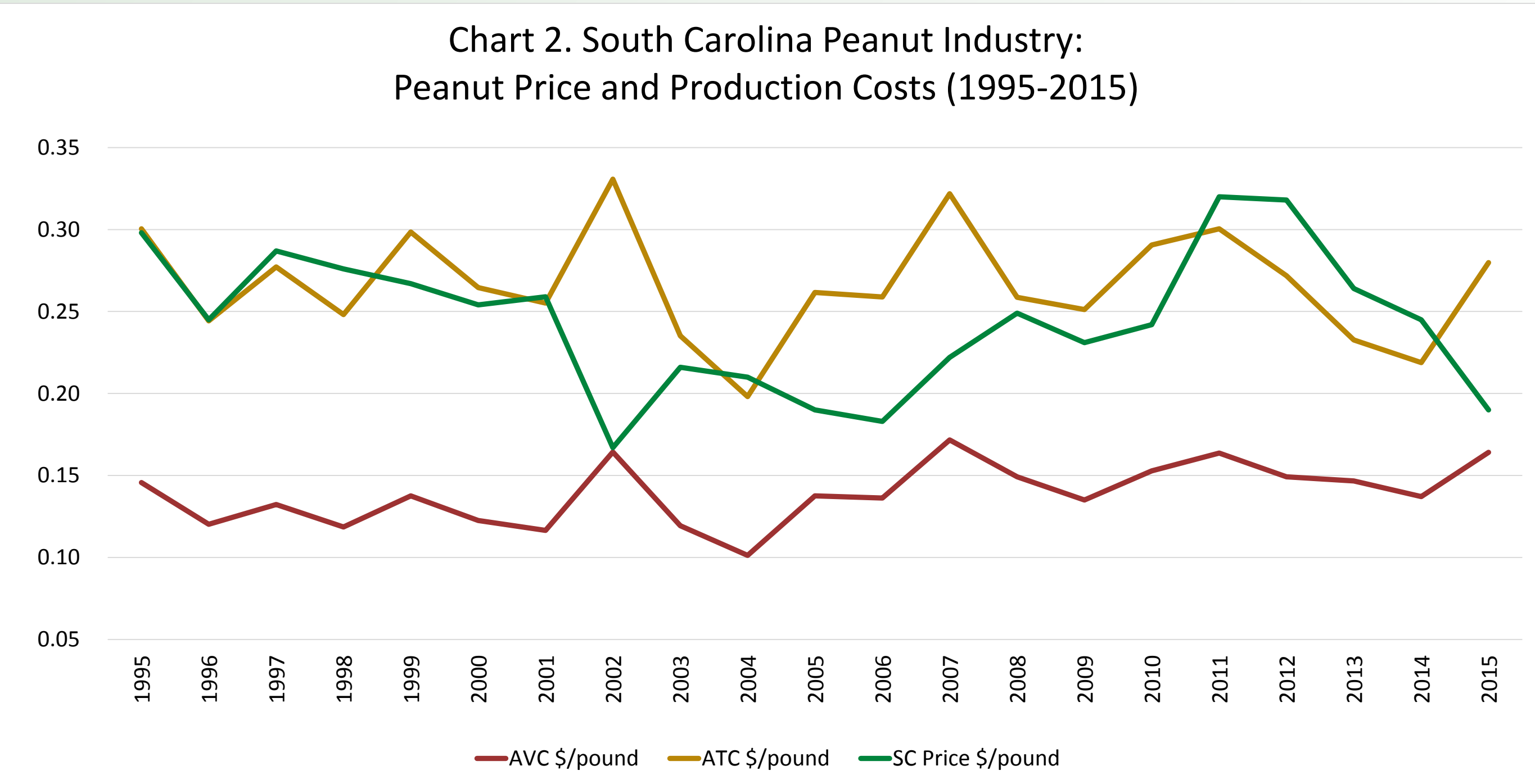


Table 2. South Carolina Peanut Industry: Peanut Price and Production Costs (1995-2002).

		1995-2001		2002-2015	
		Average	CV	Average	CV
Average Variable Costs	\$/pound	0.128	0.09	0.145	0.13
Average Total Costs	\$/pound	0.270	0.09	0.265	0.14
Price received	\$/pound	0.269	0.07	0.232	0.20
PCM (based on AVC)	\$/pound	0.142	0.09	0.087	0.54
PCM (based on AVC)	% of price	52.62	0.05	35.47	0.43
PCM (based on ATC)	\$/pound	0.00	-56.03	-0.03	-1.83
PCM (based on ATC)	% of price	-0.21	-31.74	-18.73	-1.70

Changes in the Industry Performance Following the Deregulation (2002-2015)

- The average *price* received by growers decreased by 14%
- The average *variable costs* increased by almost 13%
 - The average *price-cost margin* (calculated using AVC) decreased by more than 30%
- The average total production costs remained at approximately the same level
 - The average *price-cost margin* (calculated using ATC) became negative

Table 3. Peanut Price Flexibility

	2004-2005	2013-2014
Q, million pounds	112.2; 168.0	273.0; 410.4
P, \$ per pound	0.21; 0.19	0.26; 0.25
% change in Q	50	50
% change in P	-10	-7
Price Flexibility	-0.20	-0.14

Based on 2013-2014 production (pounds) and price (\$ per pound) data

Peanut price flexibility is -0.14

- An increase in peanut production by 1% results in a decrease in peanut price by 0.14%

- A decrease in peanut production by 1% results in an increase in peanut price by 0.14%

- Should be used with caution in the decision-making process
- A high level of supply volatility

Conclusions

Changes in the South Carolina peanut industry performance

- Increase in peanut production and increase in production volatility
- Decrease in peanut price received by growers and increase in price volatility
- Price-cost margins exhibit a decreasing trend over time
 - Increasing volatility of peanut production costs

Market environment after the industry deregulation

- A greater exposure of peanut growers to production, marketing and price risks
- Current farm support programs influence production and marketing decisions of peanut growers
- The use of marketing contracts increases
- Contract pricing structures are tied to marketing loan rates
- Price discovery issue: peanut industry has “thin” market characteristics

References

Dohlman, E., and J. Livezey. 2005. Peanut Backgrounder. USDA Economic Research Service, Electronic Outlook Report OCS-05i-01.

Dohlman, E., L. Foreman, and M. Da Pra. 2009. The Post-Buyout Experience: Peanut and Tobacco Sectors Adapt to Policy Reform. USDA Economic Research Service, Economic Information Bulletin Number 60.

Schnepf, R. 2016. U.S. Peanut Program and Issues. Congressional Research Service Report R44156.

